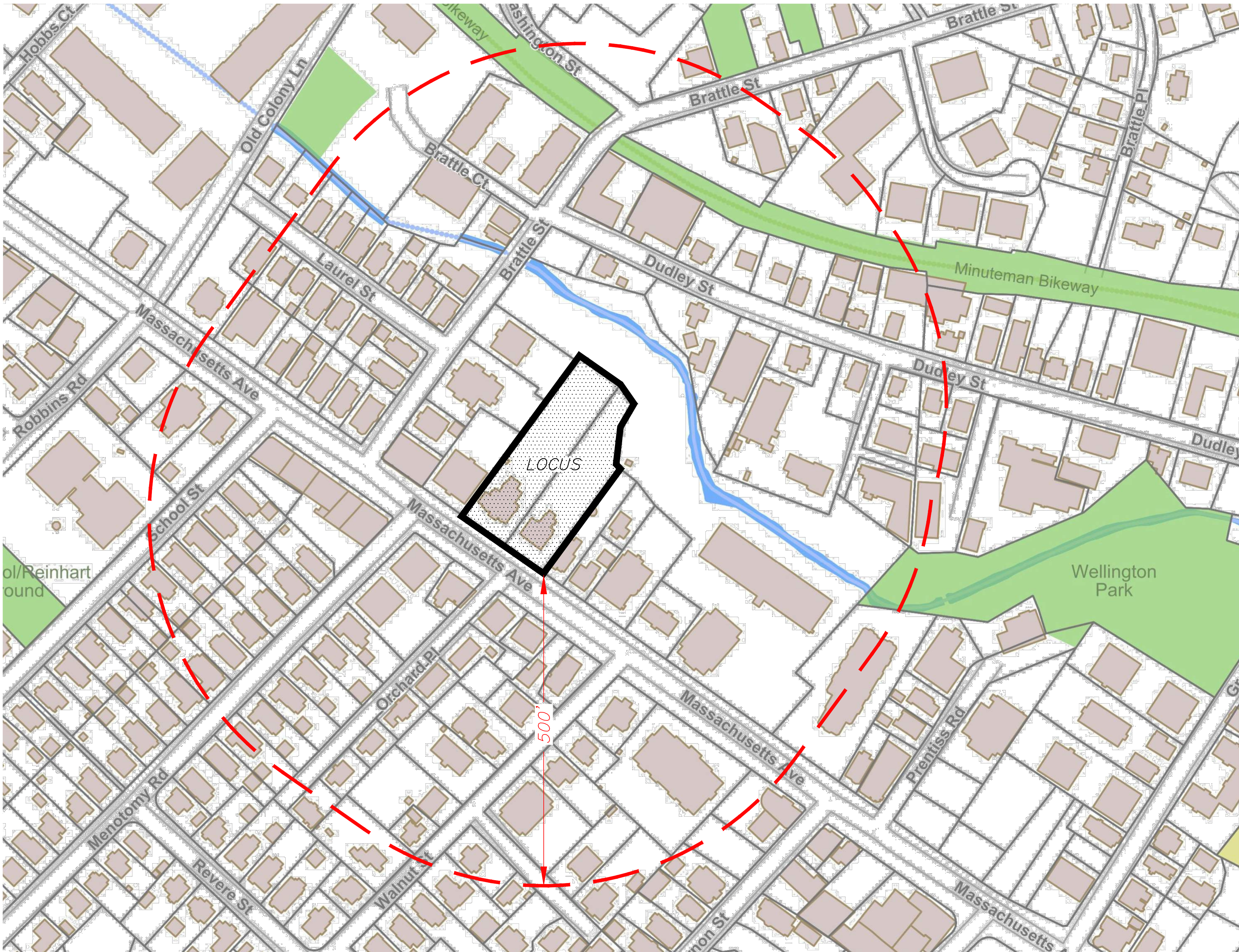


NOTES:

1. THE INFORMATION DEPICTED ON THIS PLAN HAS BEEN COMPILED FROM THE TOWN OF ARLINGTON GIS SYSTEM

2. LAND USE WITHIN 500 FEET OF THE SUBJECT PROPERTY IS PRIMARILY SINGLE FAMILY DWELLINGS AND COMMERCIAL BUSINESSES, AND INCLUDES THE HIGHLAND FIRE STATION.

1021 & 1025 MASSACHUSETTS AVENUE
(1021 ASSESSORS MAP 55 LOT 19)
(1025 ASSESSORS MAP 55 LOT 20)
COMPREHENSIVE PERMIT PLAN SET
(TO ACCOMPANY A ZONING BOARD OF APPEALS APPLICATION)
LOCATED IN ARLINGTON, MA
SEPTEMBER 19, 2022 - REVISED JANUARY 23, 2023



LOCUS CONTEXT MAP
(SCALE 1"=100')

PREPARED BY:
PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com



SHEET INDEX

1.	COVER SHEET
2.	EXISTING CONDITIONS PLAN
3.	SITE DEMOLITION PLAN
4.	SITE LAYOUT AND MATERIALS PLAN
5.	EROSION CONTROL/ CONSTRUCTION STORMWATER PLAN
6.	SITE GRADING AND UTILITY PLAN
7.	SITE UTILITY PLAN
8.	EMERGENCY ACCESS PLAN
9.	SITE DETAILS - I
10.	SITE DETAILS - II

APPLICANT:
MAJ INVESTMENT, LLC
13 WHEELING AVENUE
WOBURN, MA 01801

Location:
PARCEL ID:
1021 MASSACHUSETTS AVENUE
MAP 055 BLOCK 002 LOT 019

1025 - 1027 MASSACHUSETTS AVENUE
MAP 055 BLOCK 002 LOT 020

ARLINGTON, MA

PREPARED FOR:

PROJECT NAME:

SEAL



DRAWING NUMBER:

2 OF 10

PROJECT NUMBER: _____

Copyright © 2021 by R.J. O'Connell & Associates, Inc.



(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING SITE CONDITIONS, AS THEY EXISTED AT THE TIME OF THE FIELD SURVEY, OF 1021 AND 1025 MASSACHUSETTS AVENUE IN THE ARLINGTON. THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS BETWEEN 8/13/2021 AND 9/27/2021, BY RJ O'CONNELL & ASSOCIATES, INC. (RJOC).
2. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
3. THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83). THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
4. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
5. EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
6. CONTOUR INTERVAL IS TWO FOOT (2').
7. EXISTING UTILITIES WITHIN MASS AVE WERE COMPILED FROM RECORD INFORMATION RECEIVED FROM TOWN RECORDS
8. ABUTTING PROPERTY INFORMATION INCLUDING STRUCTURES AND PAVEMENT EDGE WERE COMPILED FROM THE TOWN OF ARLINGTON GIS MAP

PLAN BOOK AND PAGES REFERENCE THE MIDDLESEX SOUTH COUNTY REGISTRY OF DEEDS

1. PLAN BOOK 21 PAGE 6 (1864)
2. LAND COURT PLAN 31556a (1962)
3. PLAN 1006 OR 1967
4. LAND COURT PLAN 35170 (1970)
5. PLAN 1158 OF 1986
6. PLAN 586 OF 2015

TEST PITS WERE PERFORMED BY MICHAEL CAPACHIETTI
OF RJ O'CONNELL & ASSOCIATES, ON 09/22/2021.

TEST PIT: TP-01
ELEV.=82.8±
BOTTOM OF HOLE ELEV.=76.1

0"-10"	Ap
10"-22"	B: LOAMY SAND
22"-80"	HORIZON C: GRAVELLY LOAMY SAND W/ COBBLES

NO E.S.H.G.W. OBSERVED

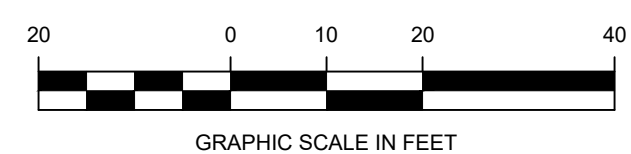
TEST PIT: TP-02

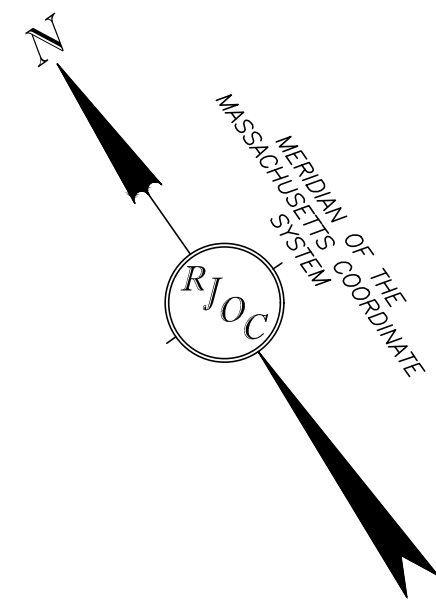
ELEV.=90.0±

BOTTOM OF HOLE ELEV.=82.6

0"-28"	HTM
28"-36"	B: LOAMY SAND
36"-88"	HORIZON C: GRAVELLY LOAMY SAND W/ COBBLES

NO E.S.H.G.W. OBSERVED





NOTES:

1. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
2. THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
3. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
4. EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
5. CONTOUR INTERVAL IS TWO FOOT (2').
6. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.

LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

BOUNDARY LINE	
---	ABUTTING PROPERTY LINE
---	SEWER SERVICE
---	DRAIN SERVICE
---	WATER SERVICE
---	GAS LINE
---	ELECTRIC LINE
---	TELEPHONE LINE
---	OVERHEAD WIRES
---	CHAIN LINK FENCE
---	STOCKADE FENCE
CC	CONCRETE CURB
VGC	VERTICAL GRANITE CURB
BCB	BITUMINOUS CONCRETE CURB
HC	HANDICAP
HPDE	HIGH DENSITY POLYETHYLENE
CONC.	CONCRETE
LSA	LANDSCAPE AREA
DOOR	DOOR
SIGN	SIGN
8/8C	PARKING COUNT / COMPACT NUMBER
DECIDUOUS TREE	DECIDUOUS TREE
CONIFEROUS TREE	CONIFEROUS TREE
FROM RECORD PLANS	FROM RECORD PLANS
RETAINING WALL	RETAINING WALL
DETECTABLE WARNING PAD	DETECTABLE WARNING PAD
UTILITY POLE	
LIGHT POLE	
ELECTRIC HAND HOLE	
CABLE MANHOLE	
SEWER MANHOLE	
DRAIN MANHOLE	
CATCH BASIN	
WATER VALVE	
FIRE HYDRANT	
SPRINKLER CONNECTION	
POST INDICATOR VALVE	
BOLLARD	
GAS METER	
GAS VALVE	
ROOF DRAIN	
AREA DRAIN	
IRRIGATION CONTROL VALVE	
SPOT GRADE	
TEST PIT	
PTBR	PROPOSED TO BE REMOVED
PROPOSED FILTERMITT	
EXISTING TREE PROPOSED TO BE REMOVED	

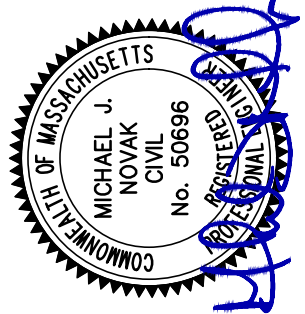
FOR EROSION CONTROL
MEASURES SEE SHEET 5

79 EXISTING TREES TO BE REMOVED

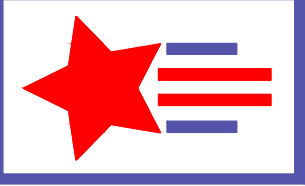
PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS
DRAWN BY: DATE: 09-19-2022
CHECKED BY: PROJECT No: 21-32

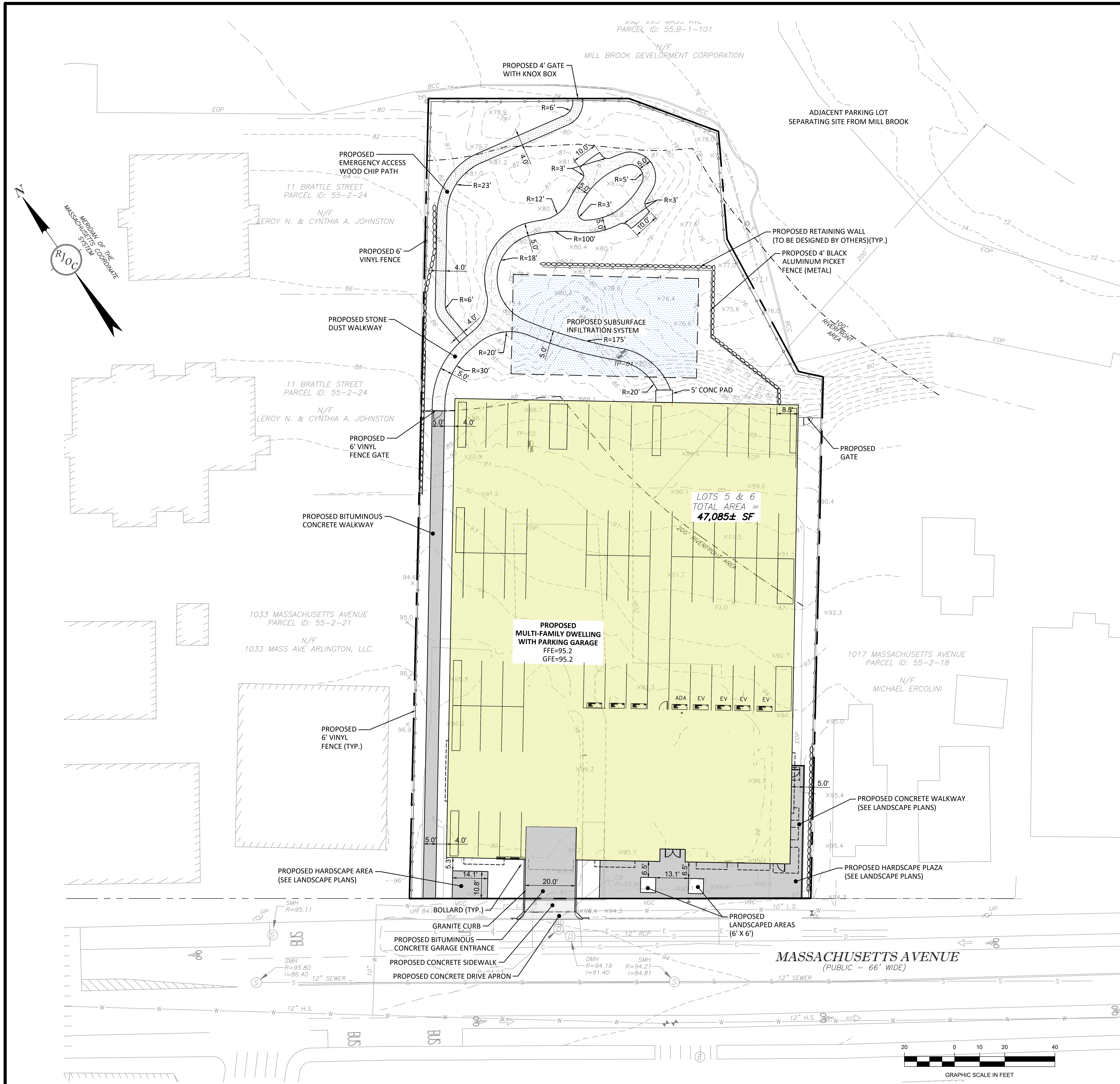
REVISIONS	
DATE	DESCRIPTION
01-23-2023	BY JBI PEER REVIEW COMMENTS



PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com



SITE DEMOLITION PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC



NOTES:

- 1. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
- 2. THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
- 3. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
- 4. EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEO ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
- 5. CONTOUR INTERVAL IS TWO FOOT (2').
- 6. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.

LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

		BOUNDARY LINE
		ABUTTING PROPERTY LINE
		SEWER SERVICE
		DRAIN SERVICE
		WATER SERVICE
		GAS LINE
		ELECTRIC LINE
		TELEPHONE LINE
		OVERHEAD WIRES
		CHAIN LINK FENCE
		STOCKADE FENCE
		INDEX CONTOUR
		INTERMEDIATE CONTOUR
		UTILITY POLE
		LIGHT POLE
		ELECTRIC HAND HOLE
		CABLE MANHOLE
		SEWER MANHOLE
		DRAIN MANHOLE
		CATCH BASIN
		WATER VALVE
		FIRE HYDRANT
		SPRINKLER CONNECTION
		POST INDICATOR VALVE
		BOLLARD
		GAS METER
		GAS VALVE
		ROOF DRAIN
		AREA DRAIN
		IRRIGATION CONTROL VALVE
		SPOT GRADE
		TEST PIT
		PROPOSED SUBSURFACE INFILTRATION SYSTEM
		PROPOSED FILTERMITT
		TYPICAL
		PROPOSED FLARED END
		INVERT
		CONCRETE CURB
		VERTICAL GRANITE CURB
		BITUMINOUS CONCRETE CURB
		HANDICAP
		HIGH DENSITY POLYETHYLENE
		CONCRETE
		LANDSCAPE AREA
		DOOR
		SIGN
		PARKING COUNT / COMPACT NUMBER
		DECIDUOUS TREE
		CONIFEROUS TREE
		FROM RECORD PLANS
		RETAINING WALL
		DETECTABLE WARNING PAD
		PROPOSED SPOT GRADE
		PROPOSED CONTOUR
		PROPOSED RETAINING WALL
		TREE PROPOSED TO BE REMOVED
		LIMIT OF RIVERFRONT AREA
		PROPOSED SEWER SERVICE
		PROPOSED WATER SERVICE
		PROPOSED DRAIN LINE

FOR EROSION CONTROL MEASURES AND LIMIT OF WORK SEE SHEET 5

FOR ADDITIONAL HARDSCAPE INFORMATION SEE LANDSCAPE DESIGN PLANS

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS

DATE: 09-19-2022
PROJECT NO: 21-32

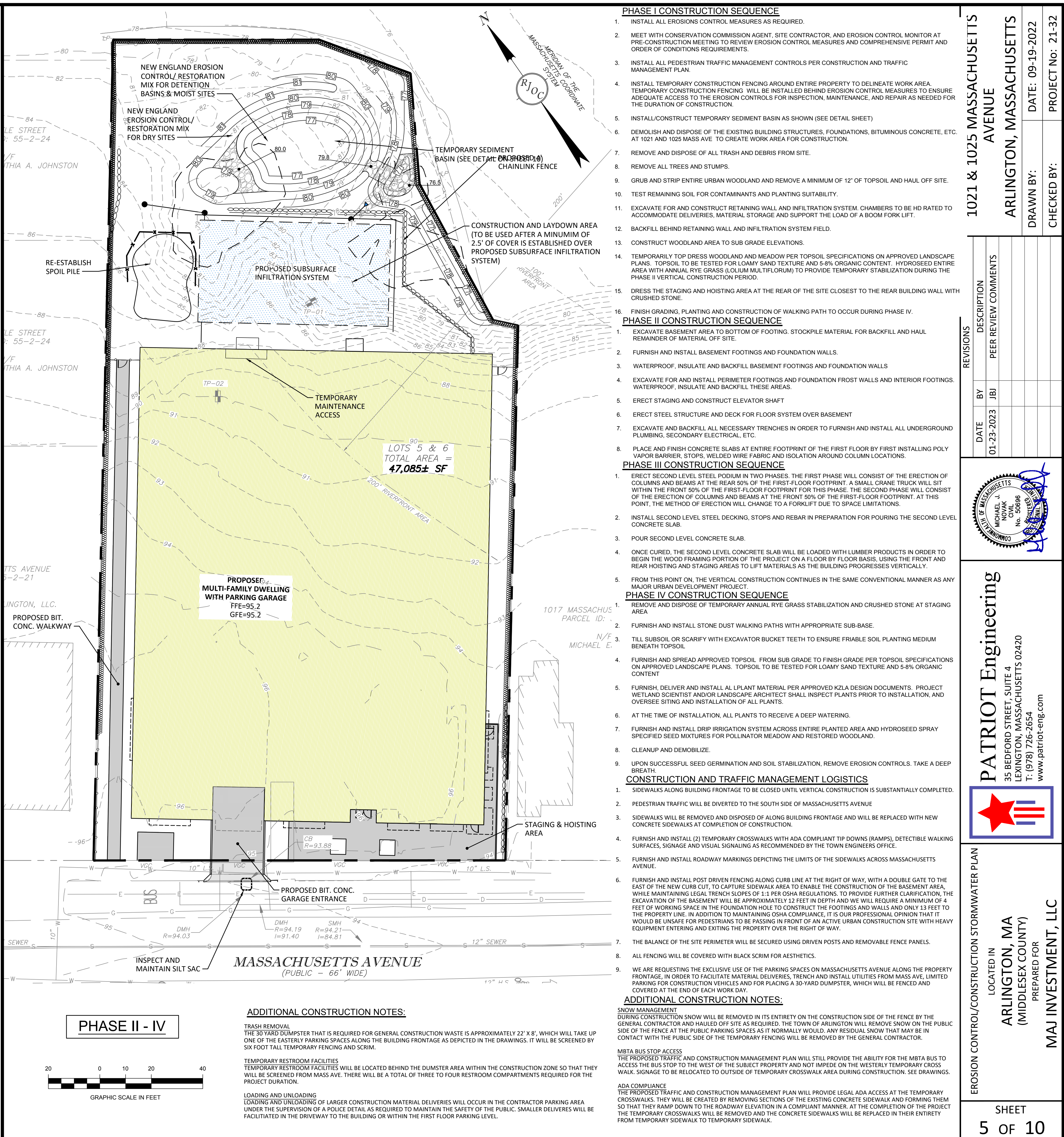
REVISIONS	DESCRIPTION	DATE	BY
	PEER REVIEW COMMENTS	01-23-2023	JB1

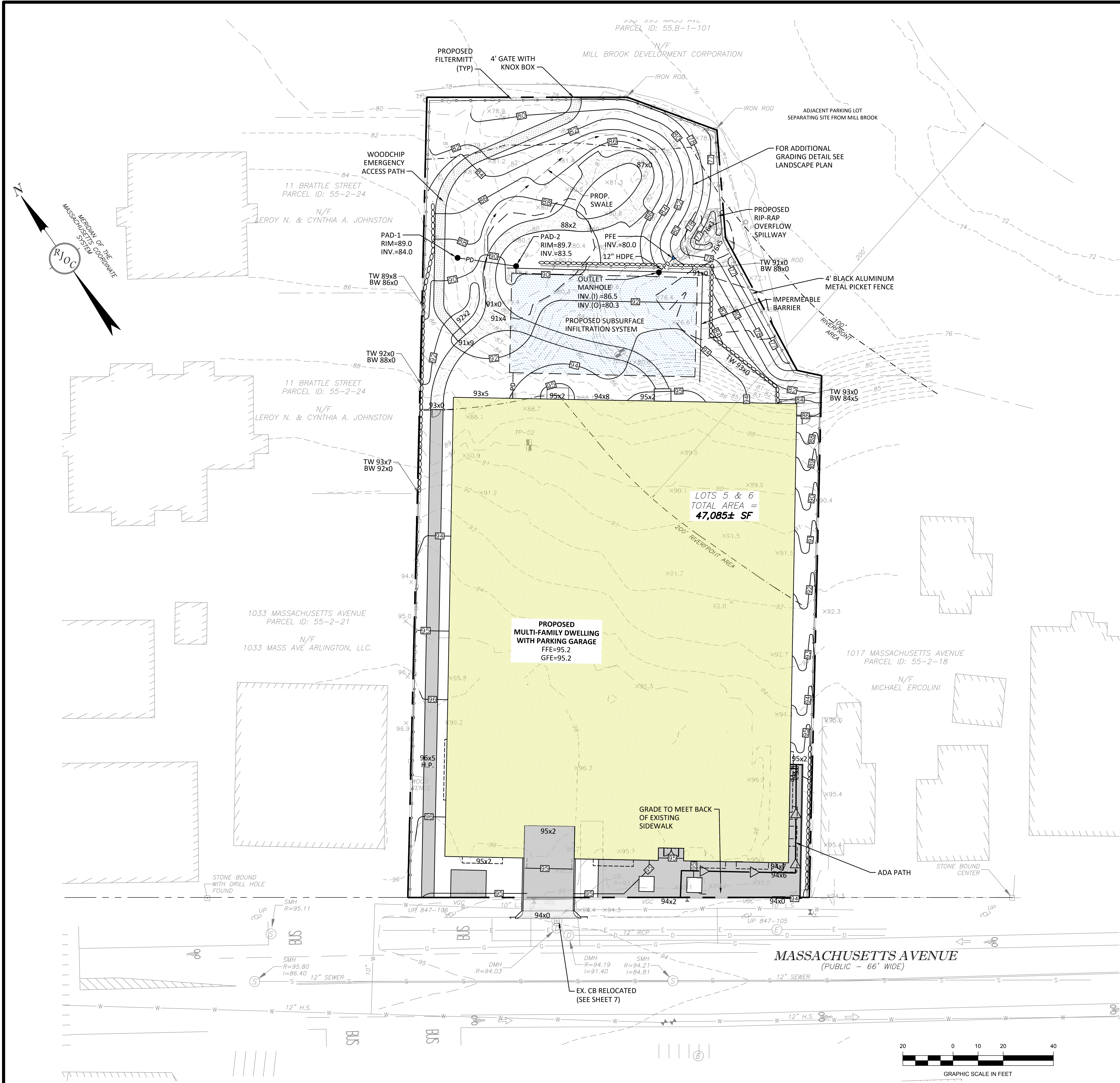
PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

LAYOUT AND MATERIALS PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC

SHEET
4 OF 10

PERMITTING SET





- NOTES:**
- UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
 - THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
 - THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
 - EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
 - CONTOUR INTERVAL IS TWO FOOT (2').
 - ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.

LEGEND	
(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)	
	BOUNDARY LINE
	ABUTTING PROPERTY LINE
	SEWER SERVICE
	DRAIN SERVICE
	WATER SERVICE
	GAS LINE
	ELECTRIC LINE
	TELEPHONE LINE
	OVERHEAD WIRES
	CHAIN LINK FENCE
	STOCKADE FENCE
	INDEX CONTOUR
	INTERMEDIATE CONTOUR
	UTILITY POLE
	LIGHT POLE
	ELECTRIC HAND HOLE
	CABLE MANHOLE
	SEWER MANHOLE
	DRAIN MANHOLE
	CATCH BASIN
	WATER VALVE
	FIRE HYDRANT
	SPRINKLER CONNECTION
	POST INDICATOR VALVE
	BOLLARD
	GAS METER
	GAS VALVE
	ROOF DRAIN
	AREA DRAIN
	IRRIGATION CONTROL VALVE
	SPOT GRADE
	TEST PIT
	PROPOSED SUBSURFACE INFILTRATION SYSTEM
	PROPOSED FILTERMITT
	TYPICAL
	PROPOSED FLARED END
	INVERT
	TOP OF WALL
	BOTTOM OF WALL
	CONCRETE CURB
	VERTICAL GRANITE CURB
	BITUMINOUS CONCRETE CURB
	HANDICAP
	HIGH DENSITY POLYETHYLENE
	CONCRETE
	LANDSCAPE AREA
	DOOR
	SIGN
	PARKING COUNT / COMPACT NUMBER
	DECIDUOUS TREE
	CONIFEROUS TREE
	FROM RECORD PLANS
	RETAINING WALL
	DETECTABLE WARNING PAD
	PROPOSED SPOT GRADE
	PROPOSED CONTOUR
	PROPOSED RETAINING WALL
	TREE PROPOSED TO BE REMOVED
	LIMIT OF RIVERFRONT AREA
	PROPOSED SEWER SERVICE
	PROPOSED WATER SERVICE
	PROPOSED DRAIN LINE
	PROPOSED SWALE

PROJECT SUMMARY	
SITE AREA	47,085 S.F.
NUMBER OF HOUSING UNITS	50 UNITS
PERCENT COVERAGE	
BUILDING COVERAGE	53%
USEABLE OPEN SPACE	46%
PARKING AND PAVED AREA	1%
UN-USEABLE OPEN SPACE	0%
TOTAL COVERAGE	100%
PARKING SUMMARY	
TOTAL PARKING SPACES:	53 SPACES
PARKING RATIO (SPACES PER UNIT)	1.1

PROPOSED RETAINING WALLS SHOWN HEREON TO BE DESIGNED BY OTHERS

PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS

REVISIONS

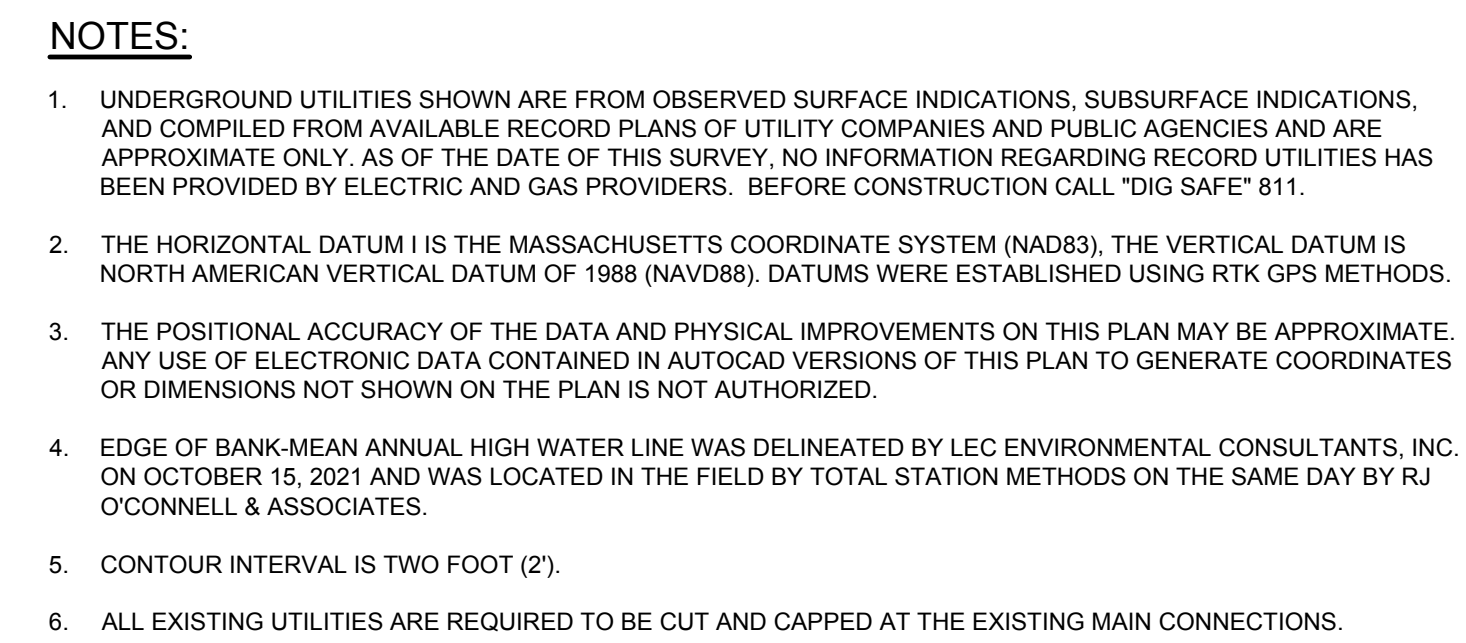
DATE: 01-23-2023
BY: JBI

DESCRIPTION: PERMIT SET

PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

SITE GRADING AND DRAINAGE PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC

SHEET
6 OF 10



1. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.
2. ALL PROPOSED WATER AND SEWER PIPING SHALL BE SEPARATED BY 10 FEET HORIZONTALLY AND/OR 18 INCHES VERTICALLY (WATER OVER SEWER).
3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS (BOTH VERTICALLY OR HORIZONTALLY) TO CONFIRM ALL PROPOSED UTILITY CONNECTIONS WILL MEET ALL TOWN REQUIREMENTS AND FUNCTION AS DESIGNED.

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

- CAPACITY FOR SEWER
12" DIA. @ 0.95% SLOPE = 9.59 CFS
97 BEDS X 110 = 10,670 GPD
(0.0165 CFS)

<p>SITE UTILITY PLAN</p> <p>LOCATED IN</p> <p>ARLINGTON, MA (MIDDLESEX COUNTY)</p> <p>PREPARED FOR</p> <p>MAJ INVESTMENT, LLC</p>	<p>SHEET</p> <p>7 OF 10</p>
--	------------------------------------



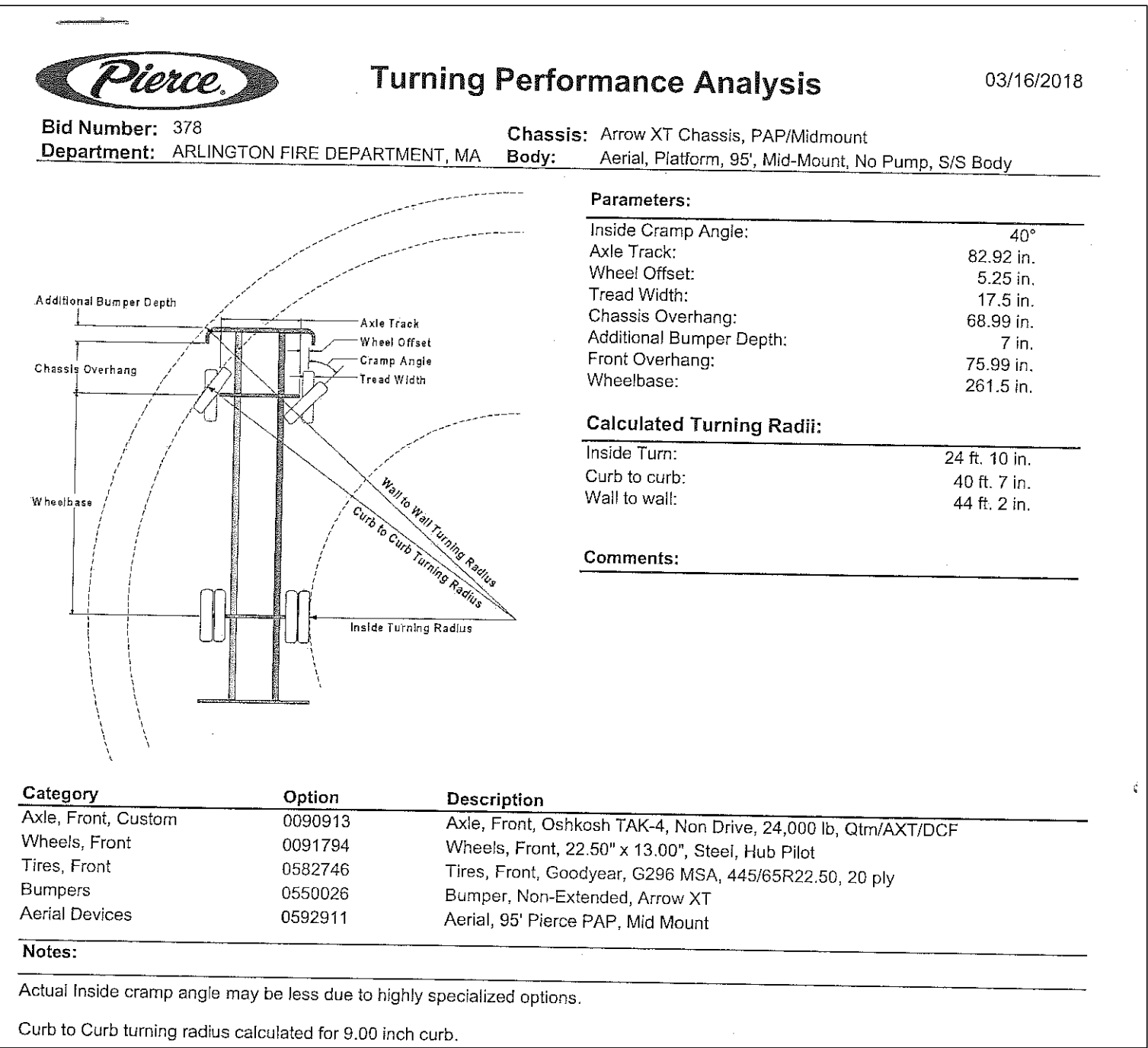
NOTES:

1. UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE INDICATIONS, SUBSURFACE INDICATIONS, AND COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. AS OF THE DATE OF THIS SURVEY, NO INFORMATION REGARDING RECORD UTILITIES HAS BEEN PROVIDED BY ELECTRIC AND GAS PROVIDERS. BEFORE CONSTRUCTION CALL "DIG SAFE" 811.
2. THE HORIZONTAL DATUM IS THE MASSACHUSETTS COORDINATE SYSTEM (NAD83), THE VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). DATUMS WERE ESTABLISHED USING RTK GPS METHODS.
3. THE POSITIONAL ACCURACY OF THE DATA AND PHYSICAL IMPROVEMENTS ON THIS PLAN MAY BE APPROXIMATE. ANY USE OF ELECTRONIC DATA CONTAINED IN AUTOCAD VERSIONS OF THIS PLAN TO GENERATE COORDINATES OR DIMENSIONS NOT SHOWN ON THE PLAN IS NOT AUTHORIZED.
4. EDGE OF BANK-MEAN ANNUAL HIGH WATER LINE WAS DELINEATED BY LEO ENVIRONMENTAL CONSULTANTS, INC. ON OCTOBER 15, 2021 AND WAS LOCATED IN THE FIELD BY TOTAL STATION METHODS ON THE SAME DAY BY RJ O'CONNELL & ASSOCIATES.
5. CONTOUR INTERVAL IS TWO FOOT (2').
6. ALL EXISTING UTILITIES ARE REQUIRED TO BE CUT AND CAPPED AT THE EXISTING MAIN CONNECTIONS.

LEGEND

(NOT ALL FEATURES CONTAINED IN THIS LEGEND APPEAR ON THE PLAN)

	BOUNDARY LINE		CONCRETE CURB
	ABUTTING PROPERTY LINE		VERTICAL GRANITE CURB
	SEWER SERVICE		BITUMINOUS CONCRETE CURB
	DRAIN SERVICE		HANDICAP
	WATER SERVICE		HIGH DENSITY POLYETHYLENE
	GAS LINE		CONCRETE
	ELECTRIC LINE		LANDSCAPE AREA
	TELEPHONE LINE		DOOR
	OVERHEAD WIRES		SIGN
	CHAIN LINK FENCE		PARKING COUNT / COMPACT NUMBER
	STOCKADE FENCE		DECIDUOUS TREE
	INDEX CONTOUR		CONIFEROUS TREE
	INTERMEDIATE CONTOUR		FROM RECORD PLANS
	UTILITY POLE		RETAINING WALL
	LIGHT POLE		DETECTABLE WARNING PAD
	ELECTRIC HAND HOLE		PROPOSED SPOT GRADE
	CABLE MANHOLE		PROPOSED CONTOUR
	SEWER MANHOLE		PROPOSED RETAINING WALL
	DRAIN MANHOLE		TREE PROPOSED TO BE REMOVED
	CATCH BASIN		LIMIT OF RIVERFRONT AREA
	WATER VALVE		PROPOSED SEWER SERVICE
	FIRE HYDRANT		PROPOSED WATER SERVICE
	SPRINKLER CONNECTION		PROPOSED DRAIN LINE
	POST INDICATOR VALVE		
	BOLLARD		
	GAS METER		
	GAS VALVE		
	ROOF DRAIN		
	AREA DRAIN		
	IRRIGATION CONTROL VALVE		
	SPOT GRADE		
	TEST PIT		
	PROPOSED SUBSURFACE INFILTRATION SYSTEM		
	PROPOSED FILTERMITT		
	TYPICAL		
	PROPOSED FLARED END		
	INVERT		



1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS

REVISIONS

DATE	BY	DESCRIPTION
01-23-2023	JB1	PEER REVIEW COMMENTS

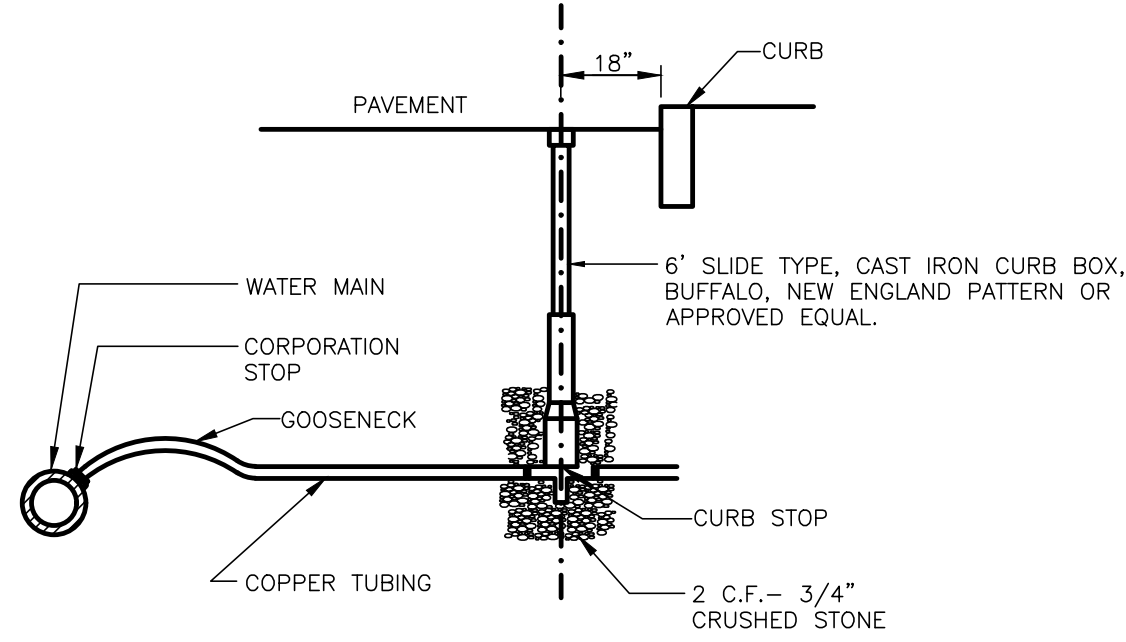
PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com

EMERGENCY ACCESS PLAN
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC

SHEET
8 OF 10

DATE: 09-19-2022
PROJECT NO: 21-32
DRAWN BY:
CHECKED BY:

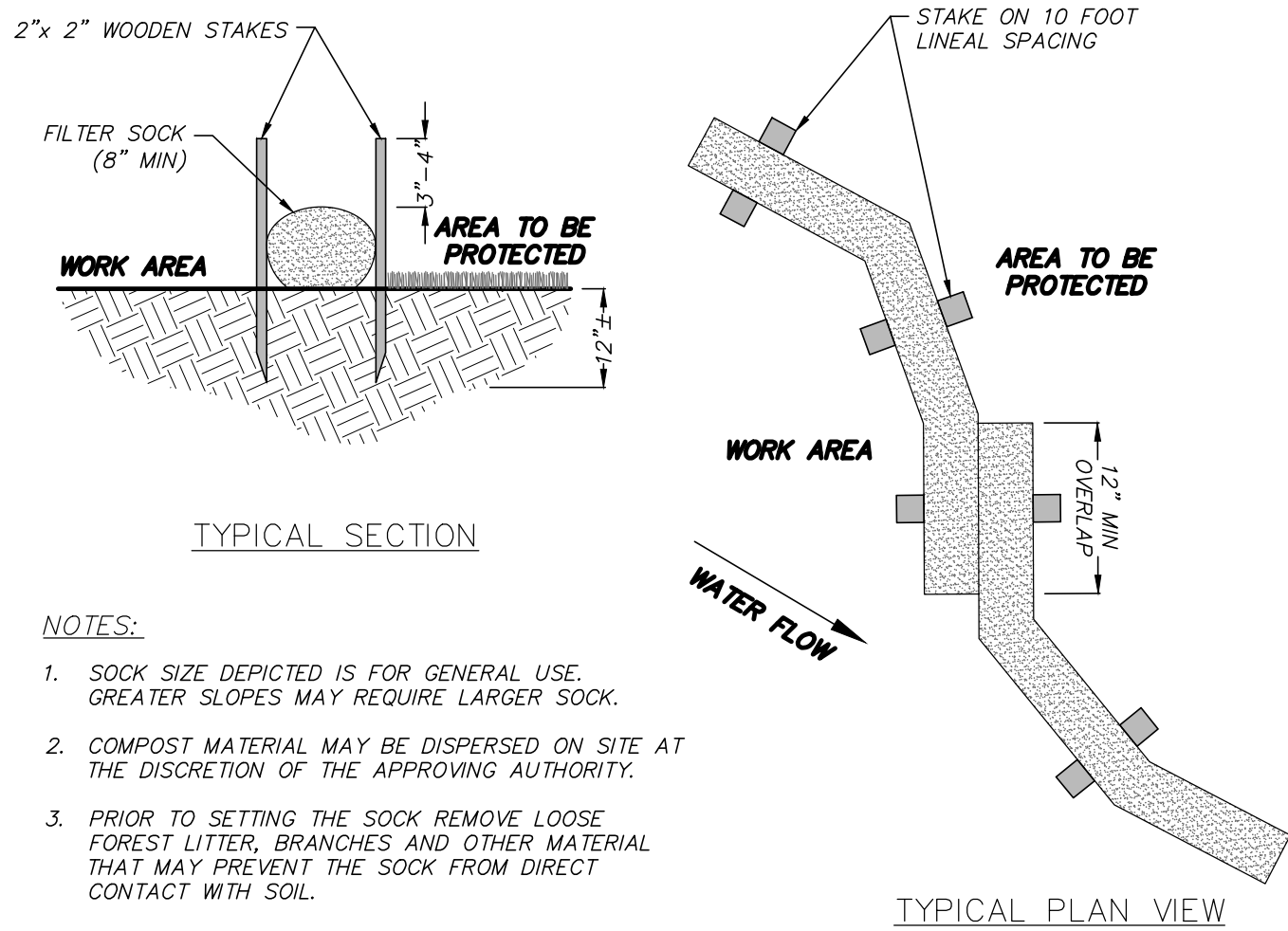
PERMITTING SET



- NOTE:
1. INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF NORTH ATTLEBOROUGH'S SPECIFICATIONS.
 2. WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN W/ APPROVED SADDLE.

TYPICAL WATER SERVICE CONNECTION DETAIL

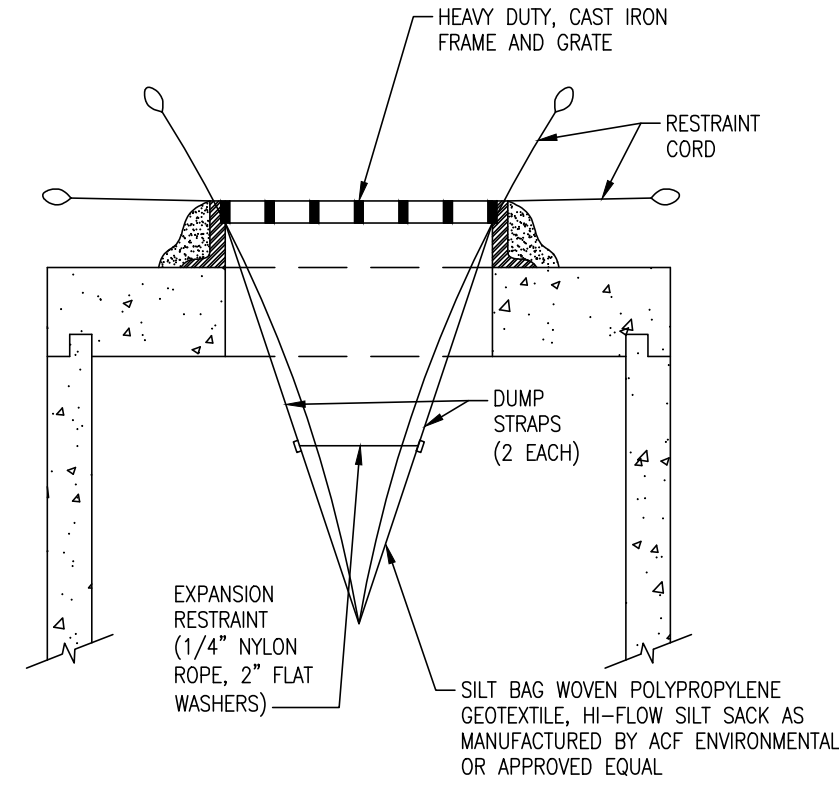
SCALE: N.T.S.



- NOTES:
1. SOCK SIZE DEPICTED IS FOR GENERAL USE. GREATER SLOPES MAY REQUIRE LARGER SOCK.
 2. COMPOST MATERIAL MAY BE DISPERSED ON SITE AT THE DISCRETION OF THE APPROVING AUTHORITY.
 3. PRIOR TO SETTING THE SOCK REMOVE LOOSE FOREST LITTER, BRANCHES AND OTHER MATERIAL THAT MAY PREVENT THE SOCK FROM DIRECT CONTACT WITH SOIL.

COMPOST FILTER SOCK

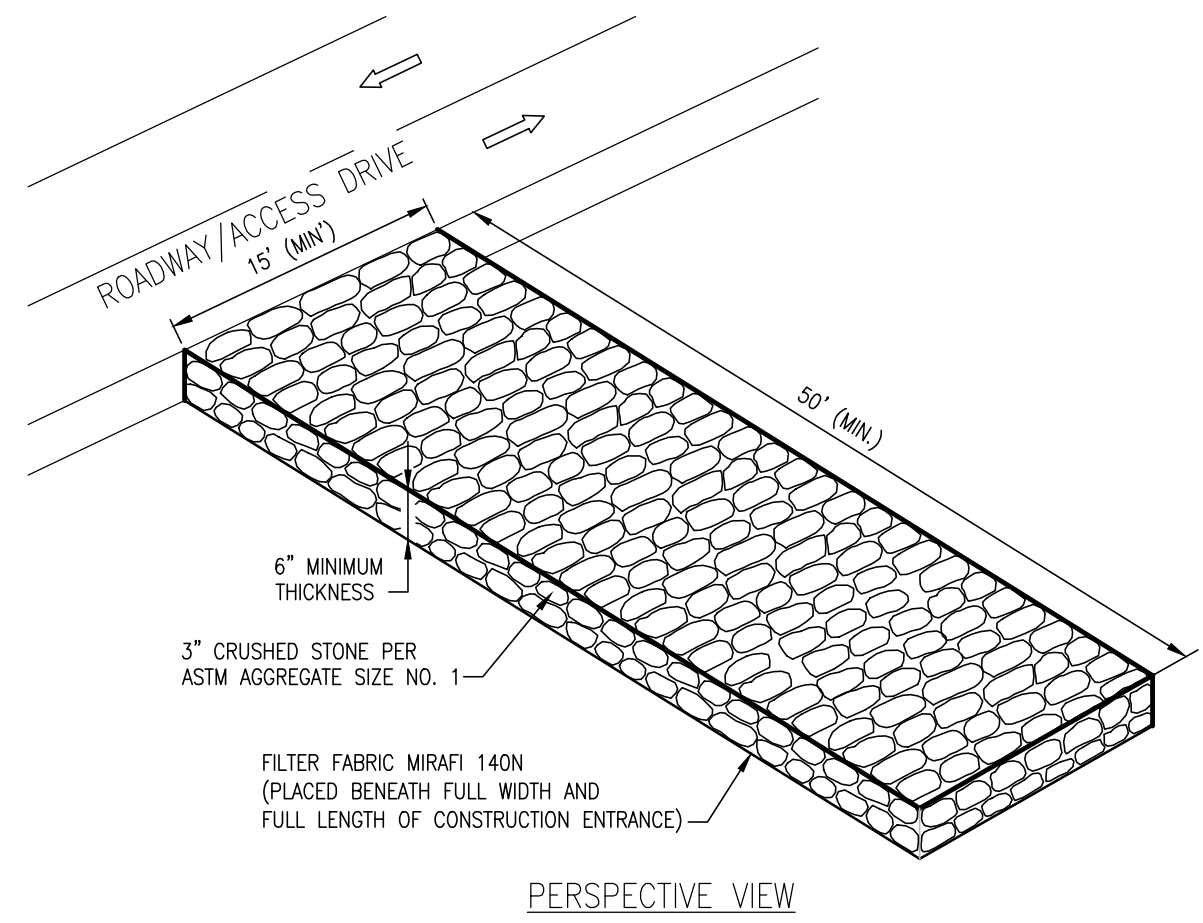
SCALE: N.T.S.



- NOTES:
1. INSTALL SILT BAG IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 2. WHEN EXPANSION RESTRAINT CORD IS NO LONGER VISIBLE, THE SILT BAG IS FULL AND SHOULD BE EMPTIED OR REPLACED.
 3. REMOVE SILT BAG PER MANUFACTURER'S INSTRUCTIONS.

TYPICAL FILTER BAG DETAIL

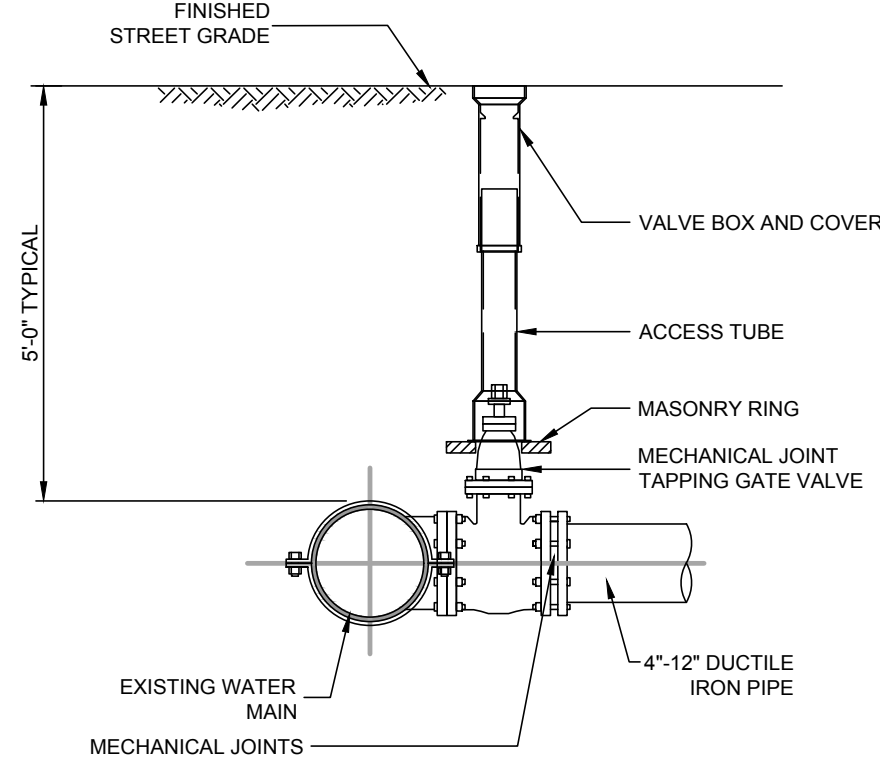
SCALE: N.T.S.



- NOTES:
1. ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
 2. WHEN THE ENTRANCE PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED WITH THE COLLECTED SOIL MATERIAL, REGRADED, STABILIZED AND THE CONSTRUCTION ENTRANCE RECONSTRUCTED.

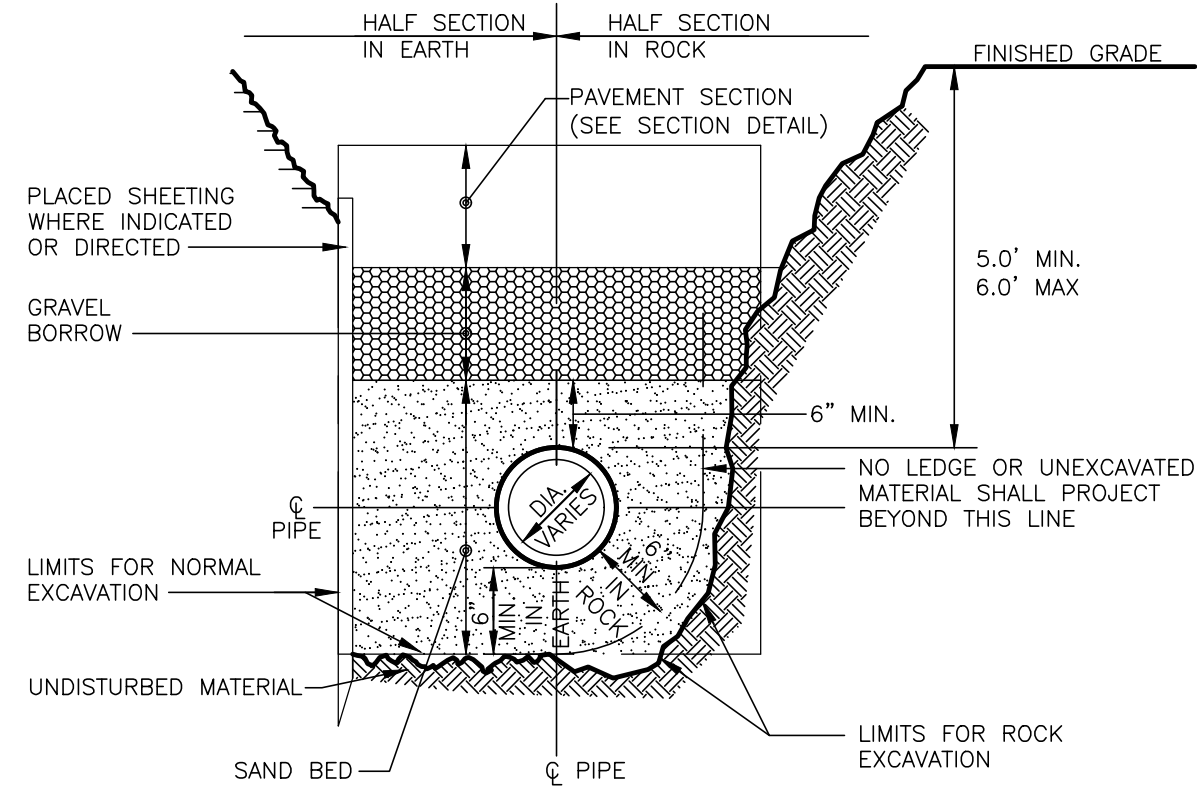
VEHICLE TRACKING PAD DETAIL

SCALE: N.T.S.



TYPICAL GATE VALVE DETAIL

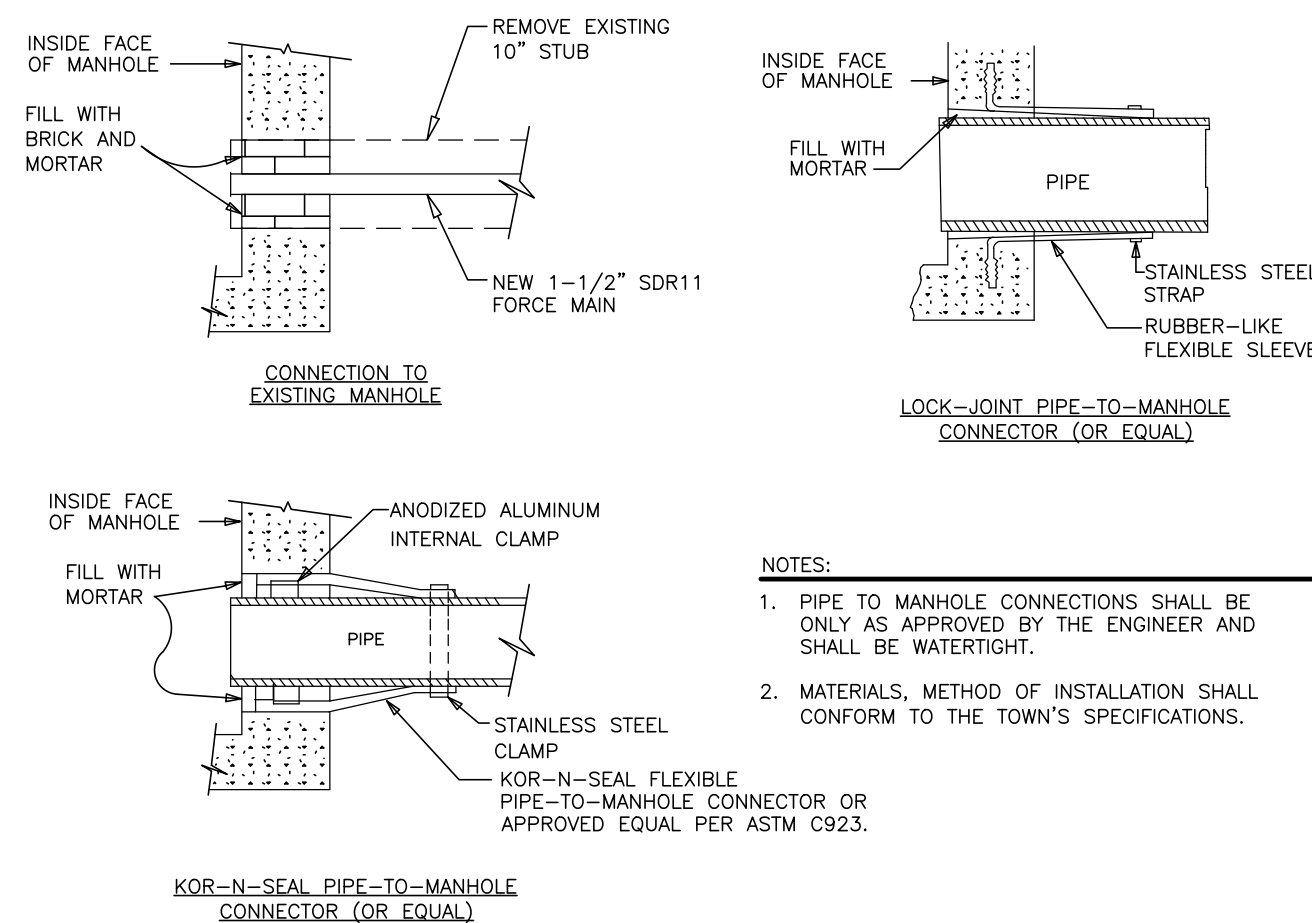
SCALE: N.T.S.



NOTE:
WHERE MORE STRINGENT, CONTRACTOR SHALL COMPLY WITH TOWN'S REQUIREMENTS.

TYPICAL WATER TRENCH DETAIL

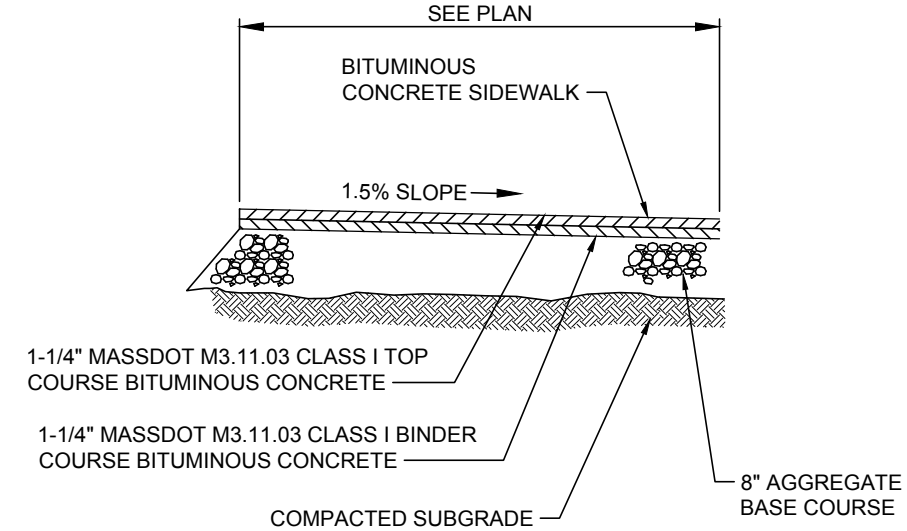
SCALE: N.T.S.



- NOTES:
1. PIPE TO MANHOLE CONNECTIONS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND SHALL BE WATER-TIGHT.
 2. MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN'S SPECIFICATIONS.

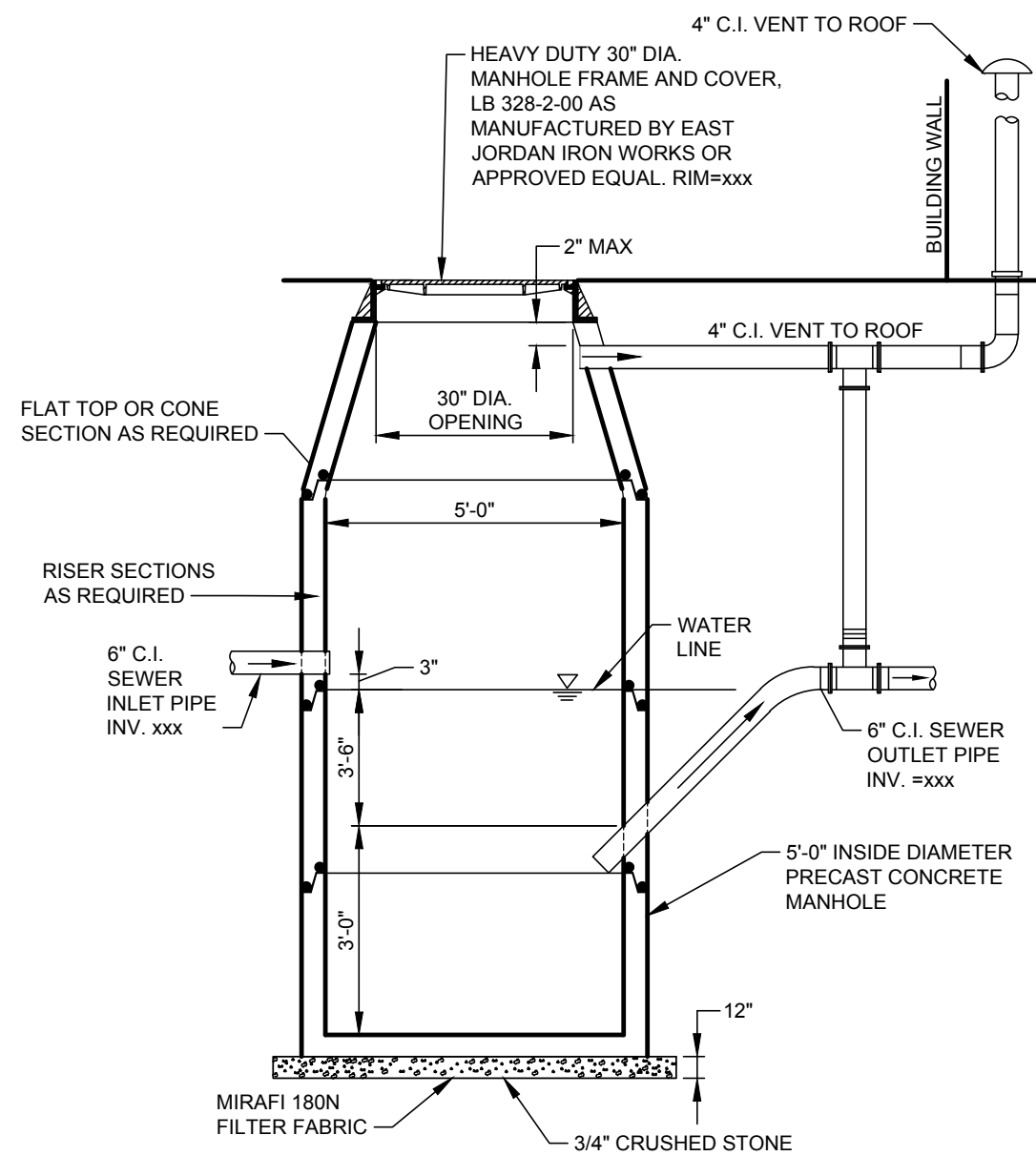
PIPE CONNECTIONS TO SEWER MANHOLE DETAIL

SCALE: N.T.S.



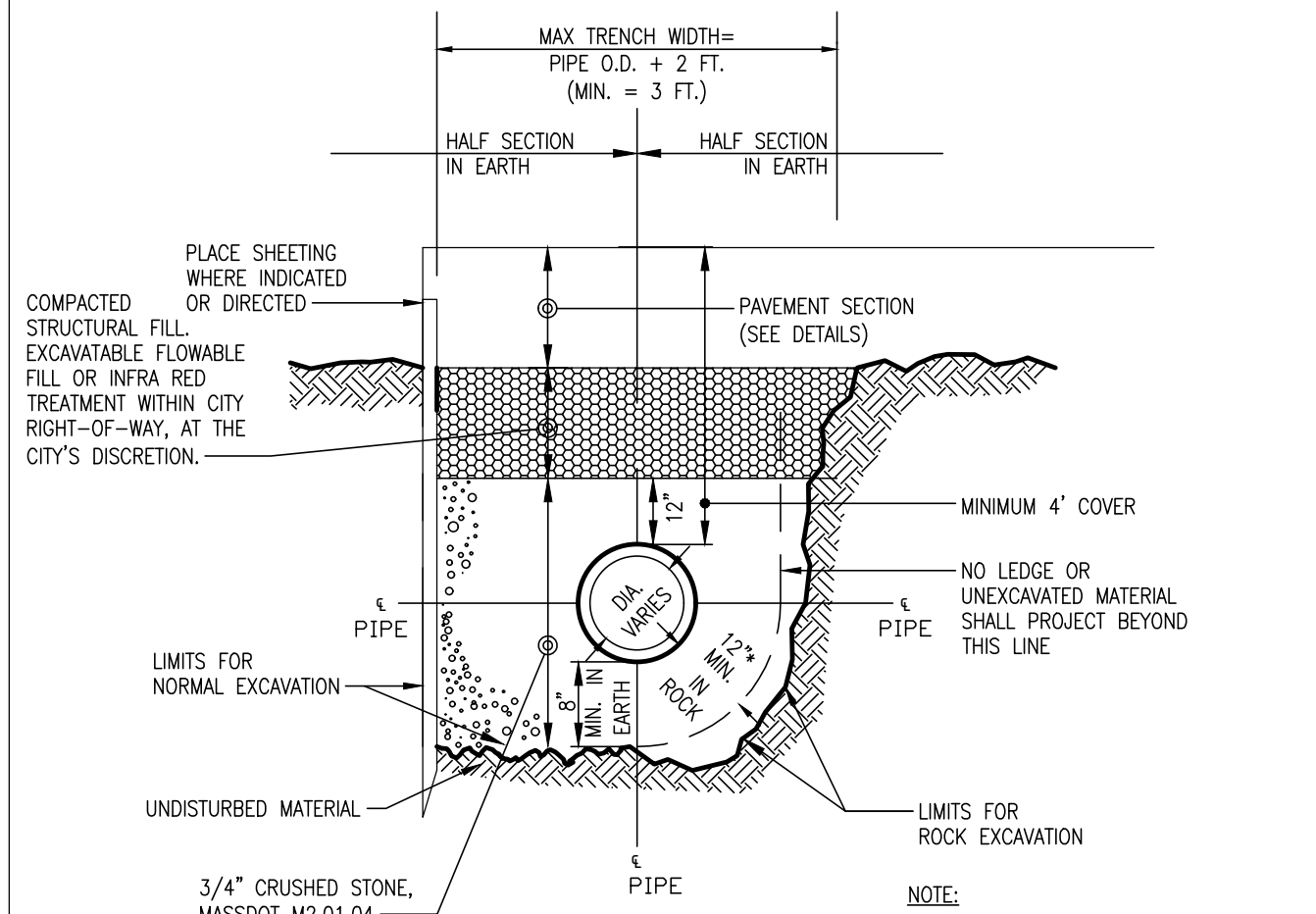
BITUMINOUS SIDEWALK DETAIL

SCALE: N.T.S.



TYPICAL OIL/WATER SEPARATOR DETAIL

SCALE: N.T.S.

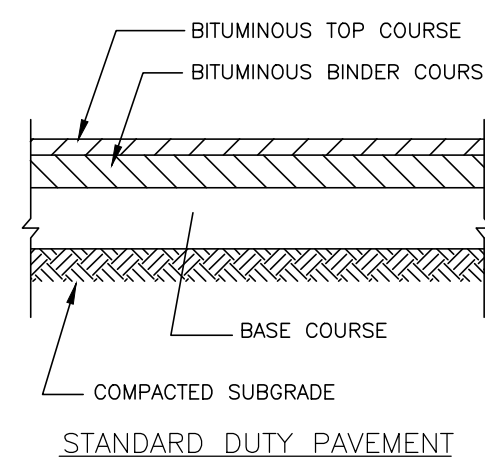


NOTE:
METHODS OF INSTALLATION TO MEET OR EXCEED THE CITY/TOWN WATER/SEWER DEPARTMENT AND PIPE MANUFACTURER'S SPECIFICATIONS.
SEWER PIPE WITH LESS THAN 4 FEET OF COVER MUST BE INSULATED. MIN SEWER COVER SHOULD NOT BE LESS THAN 3 FEET.

* AS PER CITY/TOWN SPECIFICATIONS

TYPICAL SEWER TRENCH DETAIL

SCALE: N.T.S.



PAVEMENT LAYER	STANDARD DUTY PAVEMENT
TOP COURSE BITUMINOUS PAVEMENT SECTION M3.11.00	1 INCH
BINDER COURSE BITUMINOUS PAVEMENT SECTION M1.11.00	2 INCHES
BASE COURSE SEE NOTE 3	12 INCHES

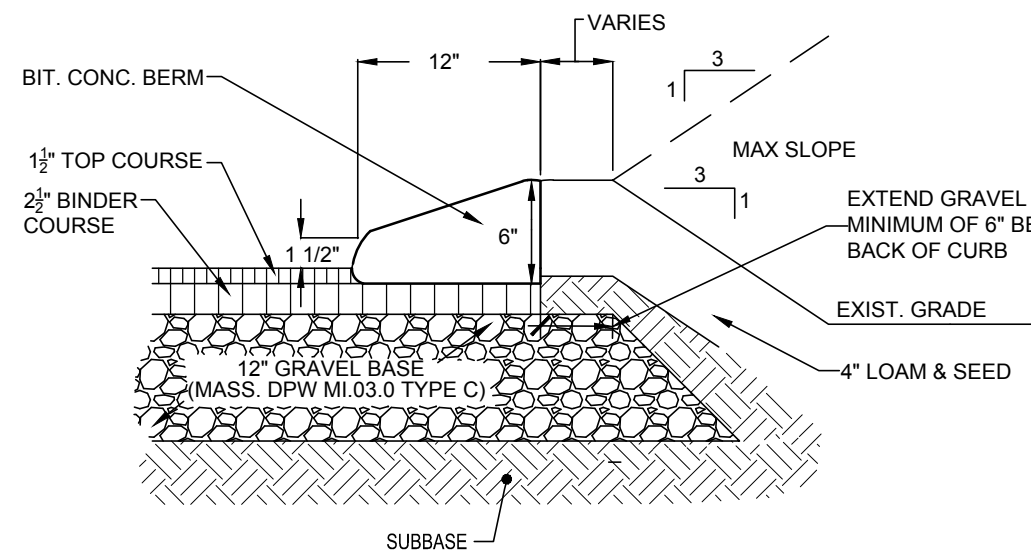
PAVEMENT SECTION TABLE

- NOTES:
1. BITUMINOUS TOP COURSE SHALL MEET MASS DOT ITEM M3.11.00 TABLE A (TOP COURSE)
 2. BITUMINOUS BINDER COURSE SHALL MEET MASS DOT ITEM M3.11.00 TABLE A (BINDER COURSE)
 3. BASE COURSE MATERIAL SHALL BE BASE COURSE SAND AND GRAVEL PER THE SPECIFICATIONS AND/OR RECLAIMED ASPHALT PAVEMENT BORROW MATERIAL PER MASSDOT ITEM M1.11.0. SEE DEMOLITION NOTES 10 AND 11, DWG. N-1.

BITUMINOUS PAVEMENT DETAIL

SCALE: N.T.S.

- NOTE:
1. BITUMINOUS CONCRETE FOR CURBING SHALL BE CLASS I CONFORMING TO THE APPLICABLE REQUIREMENTS FOR DENSE MIX IN SECTION M3.11.03, TABLE A, OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 2. THE BITUMINOUS CONCRETE MIXTURE SHALL BE PLACED AND COMPACTED WITH A MACHINE CAPABLE OF SPREADING THE MIXTURE TRUE TO LINE AND GRADE AND TO THE SHAPE STIPULATED.
 3. IF AT ANY TIME BEFORE ACCEPTANCE OF THE WORK ANY SOFT OR IMPERFECT SPOTS DEVELOP IN THE EXPOSED SURFACE OF THE CURB, THAT PORTION OF THE CURB SHALL BE REMOVED AND REPLACED WITH NEW CURBING AT NO COST TO THE OWNER.



PERMITTING SET

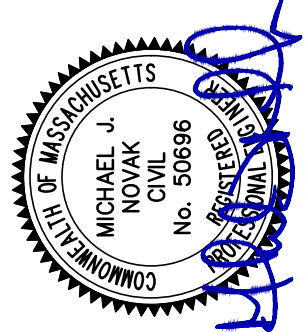
BITUMINOUS CONCRETE CURB DETAIL (CAPE COD)

SCALE: N.T.S.

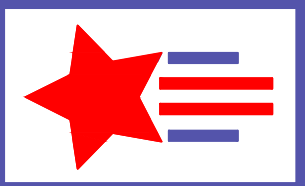
1021 & 1025 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS

DRAWN BY: DATE: 09-19-2022
CHECKED BY: PROJECT No: 21-32

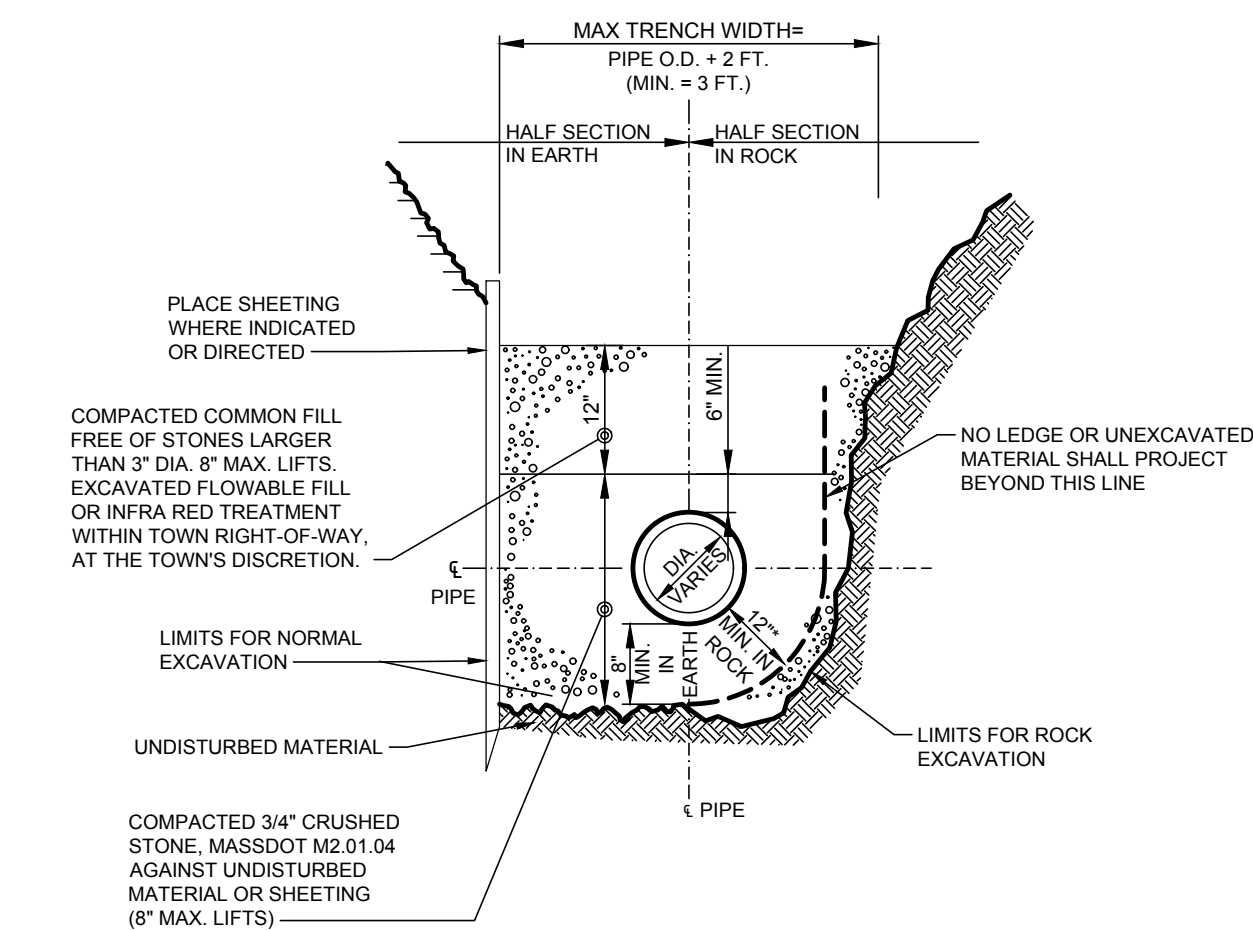
REVISIONS	DESCRIPTION
BY	PEER REVIEW COMMENTS
DATE	
01-23-2023	JB1



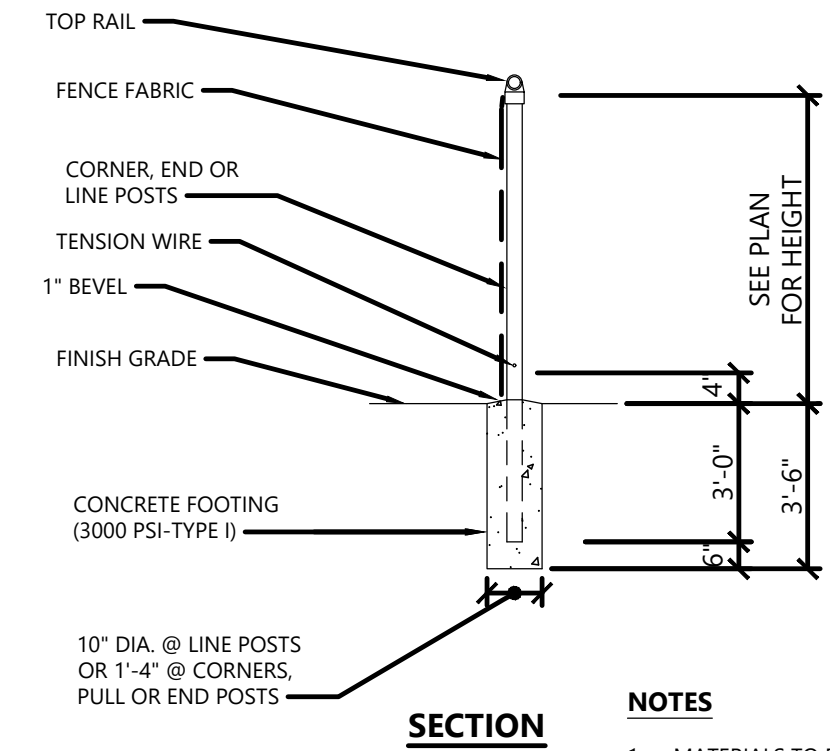
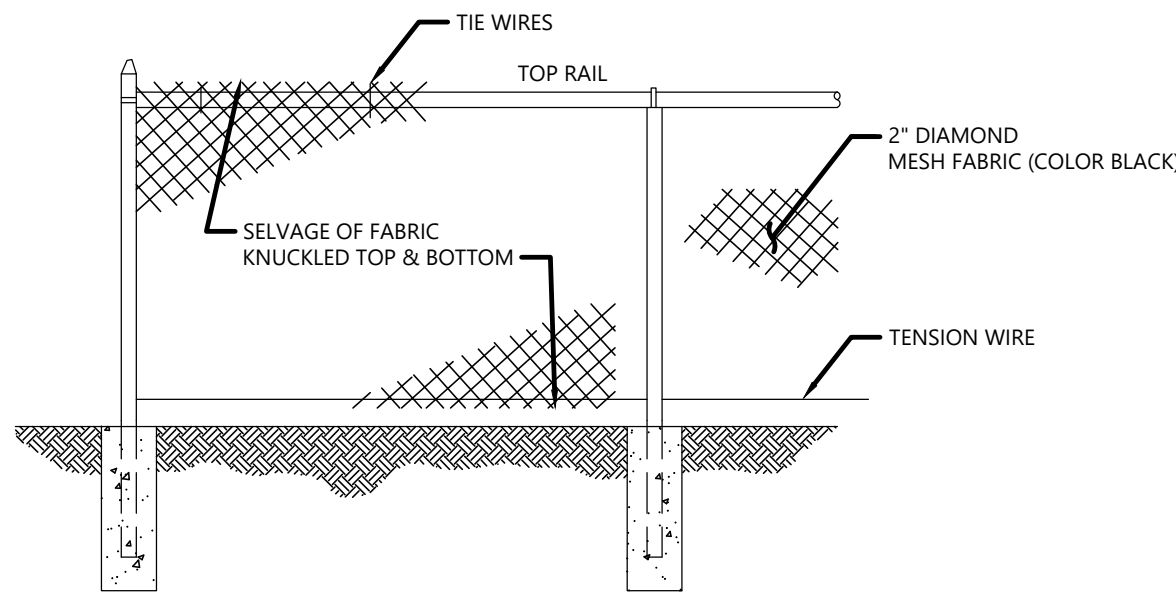
PATRIOT Engineering
35 BEDFORD STREET, SUITE 4
LEXINGTON, MASSACHUSETTS 02420
T: (978) 726-2654
www.patriot-eng.com



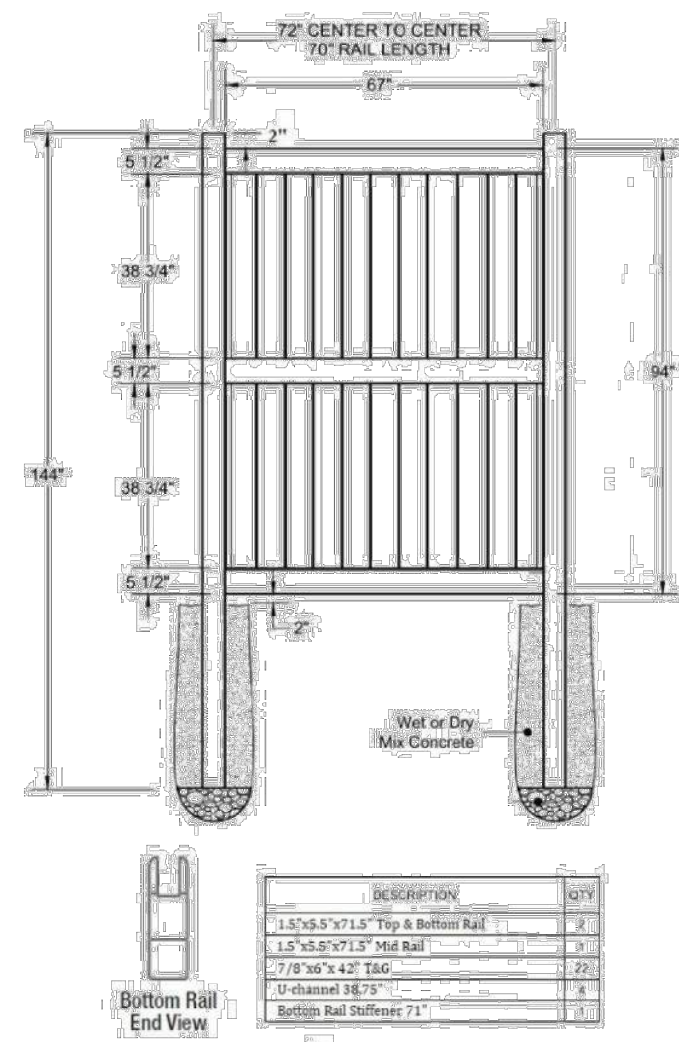
SITE DETAILS I
LOCATED IN
ARLINGTON, MA
(MIDDLESEX COUNTY)
PREPARED FOR
MAJ INVESTMENT, LLC



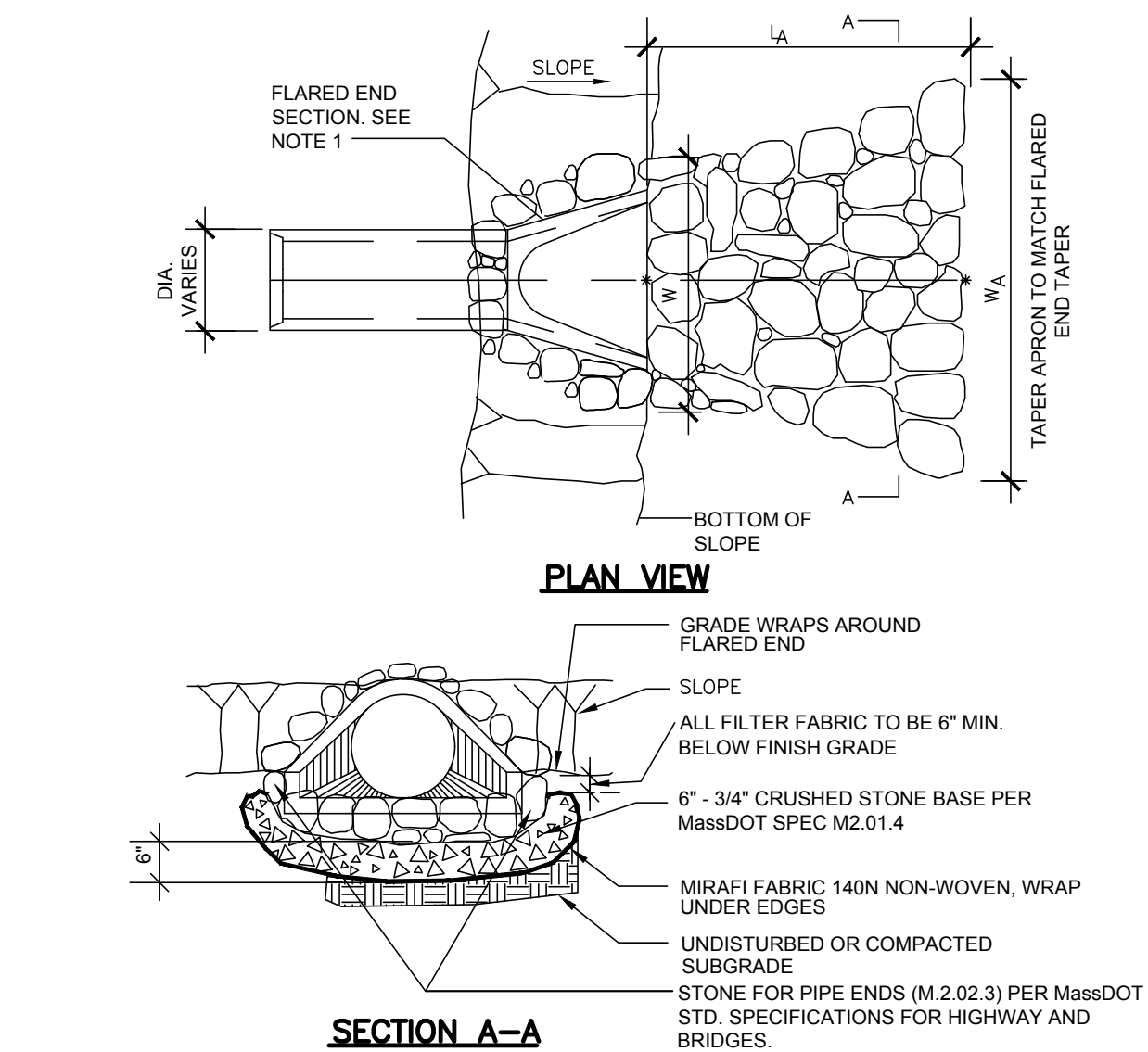
TYPICAL DRAIN TRENCH DETAIL
SCALE: N.T.S.



CHAINLINK FENCE
SCALE: N.T.S.



VINYL FENCE
SCALE: N.T.S.

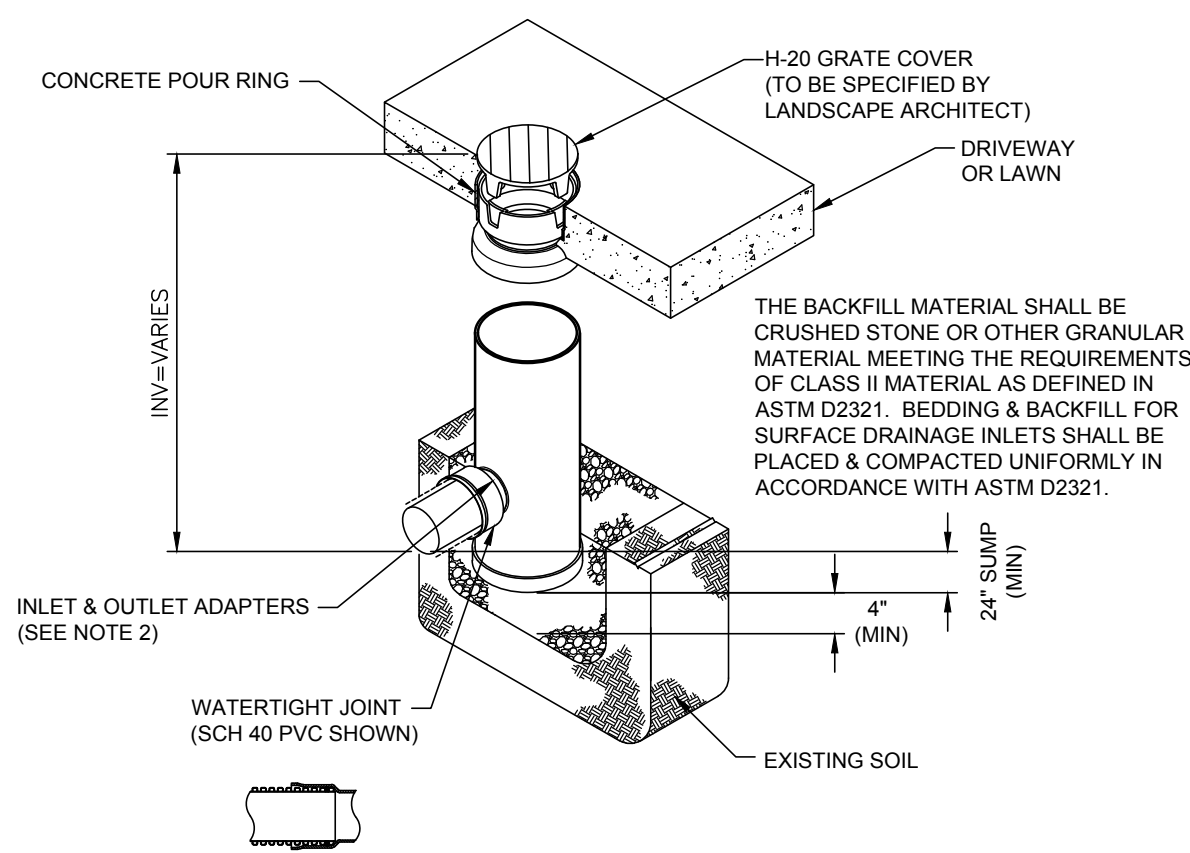


NOTES:

- THE FLARED END SECTION (FES) AND THE LAST RUN OF PIPE OUTLETTING TO THE FES SHALL BE REINFORCED CONCRETE (RCP)

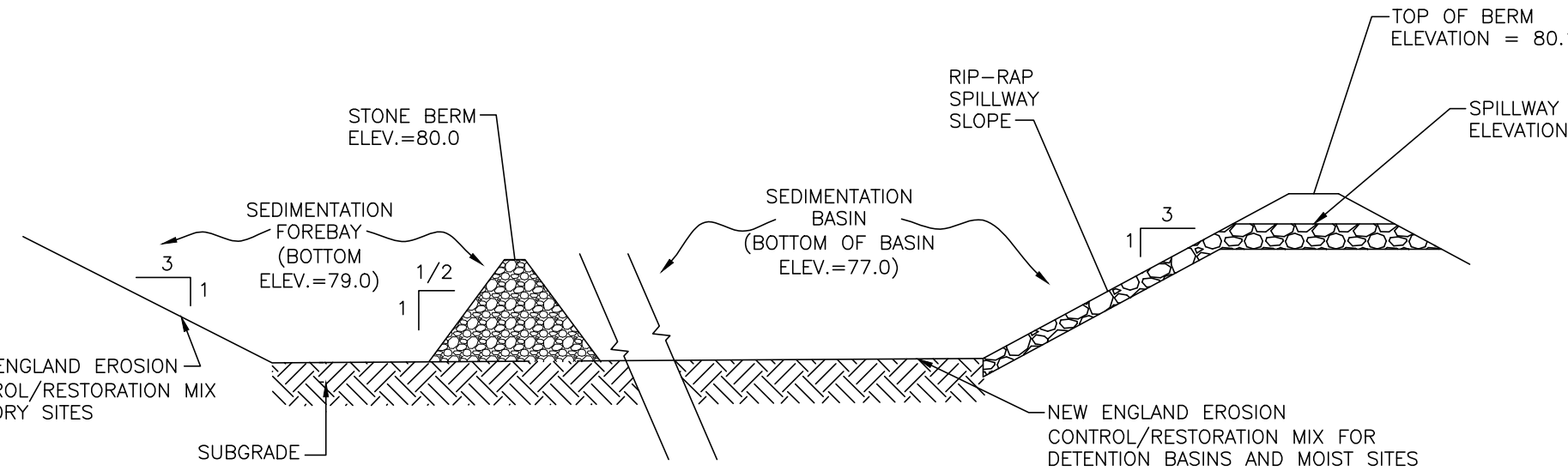
OUTLET	L _x (FT.)	W (FT.)	W _h (FT.)
FES-1	10	3	11

FLARED END SECTION WITH RIP RAP APRON
SCALE: N.T.S.



- NOTES:
- SHALL BE 6\"/>

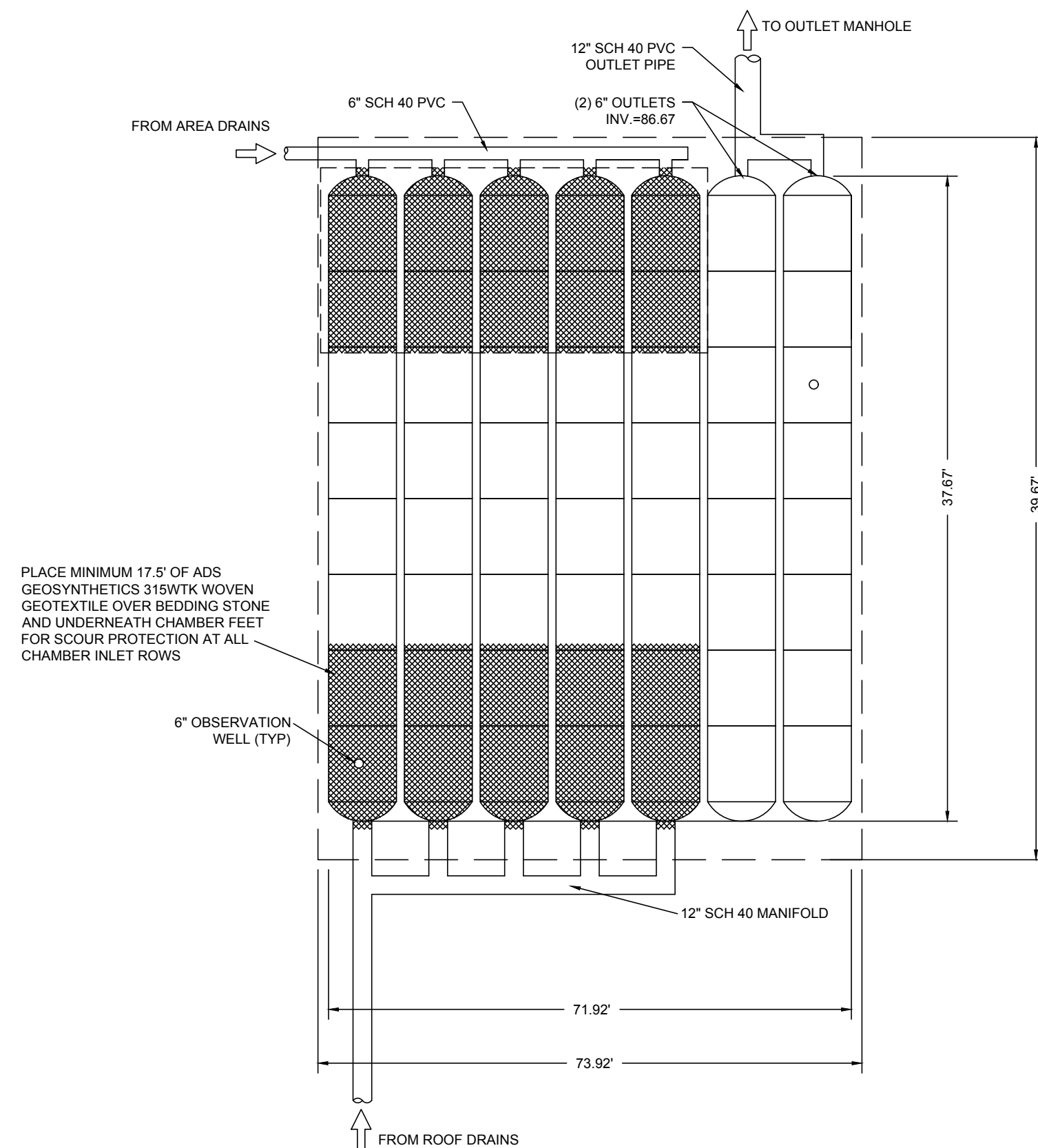
PROPOSED AREA DRAIN (WITH SUMP)
SCALE: N.T.S.



- NOTES:
- THE CONSTRUCTION OF THE SEDIMENTATION BASIN SHALL PRECEDE ALL OTHER CONSTRUCTION.
 - SEDIMENTATION BASIN HAS BEEN SIZED TO HOLD THE 1-INCH DESIGN STORM.

TYPICAL SEDIMENTATION BASIN SECTION
SCALE: N.T.S.

BASIN No.	MINIMUM VOLUME
1	3,800 CF



CONCEPTUAL LAYOUT - PSIS
(64) STORMTECH MC-4500 CHAMBERS

PROPOSED ELEVATIONS - PSIS

MINIMUM FINISHED GRADE: 89.25
 TOP OF STONE: 88.25
 TOP OF CHAMBER: 87.25
 (2) - 6\"/>

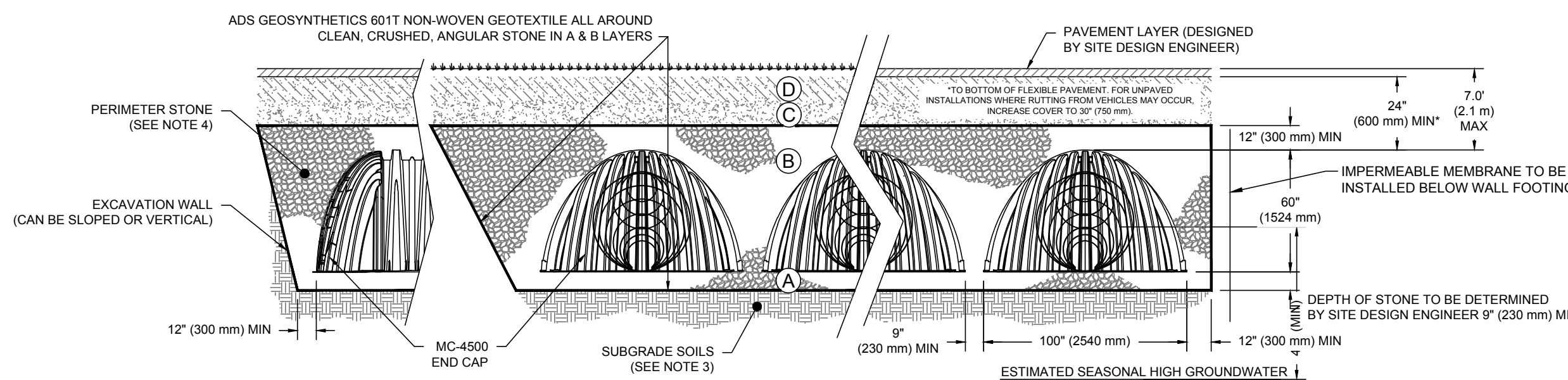
89.25
 88.25
 87.25
 86.67
 83.25
 82.25
 81.50
 76.10

PROPOSED SUBSURFACE INFILTRATION SYSTEM (PSIS)
SCALE: N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24\"/>	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ¹ 3, 3S7, 4, 4E7, 5, 5E, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 3.4	BEGIN COMPACTIONS AFTER 24\"/>
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3.4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3.4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9\"/>



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3\"/>

EXCAVATION NOTE:

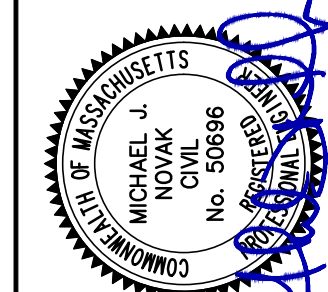
- WITHIN THE FOOTPRINT OF THE SUBSURFACE INFILTRATION SYSTEM ALL TOPSOIL, SUBSOIL AND/OR FILL SHALL BE REMOVED DOWN TO AN ELEVATION OF PARENT MATERIAL OR LEDGE AND REPLACED WITH A SAND, STONE OR CLEAN FILL MATERIAL WITH AN EQUIVALENT EXFILTRATION RATE OF 1.02 IN/HR OR GREATER. (TO BE OBSERVED AND INSPECTED BY A GEOLOGIST).

STORMTECH MC-4500 CHAMBER DETAIL (PSIS)
SCALE: N.T.S.

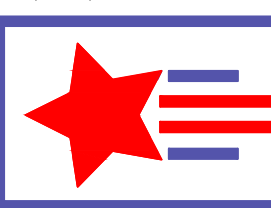
PERMITTING SET

1021 & 1025 MASSACHUSETTS AVENUE
 ARLINGTON, MASSACHUSETTS
 DRAWN BY: DATE: 09-19-2022
 CHECKED BY: PROJECT No: 21-32

REVISIONS	DESCRIPTION	DATE	BY
	PEER REVIEW COMMENTS	01-23-2023	JB1



PATRIOT Engineering
 35 BEDFORD STREET, SUITE 4
 LEXINGTON, MASSACHUSETTS 02420
 T: (978) 726-2654
 www.patriot-eng.com



SITE DETAILS II
 LOCATED IN
 ARLINGTON, MA
 (MIDDLESEX COUNTY)
 PREPARED FOR
 MAJ INVESTMENT, LLC

SHEET
 10 OF 10